

September 11, 2008
STATEMENT OF BASIS

For proposed Underground Injection Control Permit No.06SOKP1P9108 to convert a well to a salt water disposal injection well.

Issuing office: U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Applicant: Taylor International, Inc.
P. O. Box 1173
Drumright, OK 74030

1. As described in the application, the well is located in Payne County, Oklahoma, 610' FSL, 840' FEL, NE/4, Section 18, Township 19N, Range 06E.
2. On the basis of preliminary staff review, the Environmental Protection Agency has made a tentative determination to draft a permit for the construction of this well as described in the application.
3. The following is an explanation of the derivation of the conditions of the draft permit and the basis for them as required under 40 CFR §147.3101(c) dated October 25, 1988:

40 CFR §147.3106(a)

The area around the proposed injection well or project must be evaluated to ensure that the proposed injection will not cause movement of fluid into an Underground Source of Drinking Water (USDW) through improperly sealed, completed, or abandoned wells. The permit applicant submitted information on all wells of public record penetrating the injection interval within 1/2 mile of the proposed injection site and can inject a maximum of 3000 barrels per month (B/M).

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EPA then calculated a "zone of endangering influence" (the lateral area around the proposed injection in which injection pressures may cause movement of fluid into a USDW) to be 202 feet and found that there are no known improperly sealed, completed, or abandoned wells within this area.

40 CFR §146.22(a)

The well must be sited so that injection is into a formation which is separated from USDWs by a confining zone free of known open faults or fractures within the area of review. The proposed injection interval in the Oswego is at a depth of 2756 feet to 2800 feet below land surface and is approximately 2356 feet below the base of the USDW. A review of available data has shown no evidence of faults or fractures in the confining zone within the area of review.

40 CFR §146.22(b)

The well must be cased and cemented to prevent fluid movement into or between USDWs. The base of the USDW occurs at 400 feet below land surface. Since the surface casing has been set at 530 feet below land surface and the 4 1/2" long string casing has been set at 3480 feet below the land surface and cemented with 300 sacks of cement, this is adequate in this case.

40 CFR §146.23(a)

To assure the protection of USDWs adjacent to the well bore, injection must be through an adequate tubing and packer. Since the top of the injection interval is at 2756 feet, the packer in this well will be set inside the casing at 2706 feet of depth below land surface [40 CFR §146.23(a)(2)]. Injection pressure at the wellhead shall be limited so that it does not initiate new fractures or propagate existing fractures in the confining zone adjacent to any USDW [40 CFR §146.23(a)(1)]. In this well, the maximum injection pressure at the wellhead shall not exceed 400 psig.

To assure that USDWs are protected from injection fluids, the well must maintain mechanical integrity. Mechanical integrity must be demonstrated prior to operation and at least once every five years thereafter [40 CFR §146.23(b)(3)].

For additional information, please contact:

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